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NOTICE OF ALLOWANCE AND FEE(S) DUE

22150 7590 06/24/2009

F. CHAU & ASSOCIATES, LLC
130 WOODBURY ROAD
WOODBURY, NY 11797

EXAMINER

WENDELL, ANDREW

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 06/24/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/813,327

03/30/2004

Woon-Sik Suh

8729-231JHM/SS20446US

5102

TITLE OF INVENTION: COMMUNICATION DEVICE AND METHOD HAVING A COMMON PLATFORM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	09/24/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

22150 7590 06/24/2009

F. CHAU & ASSOCIATES, LLC
130 WOODBURY ROAD
WOODBURY, NY 11797

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/813,327 03/30/2004 Woon-Sik Suh 8729-231JHM/SS20446US 5102

TITLE OF INVENTION: COMMUNICATION DEVICE AND METHOD HAVING A COMMON PLATFORM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional NO \$1510 \$300 \$0 \$1810 09/24/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
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WENDELL, ANDREW 2618 455-557000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

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Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,327	03/30/2004	Woon-Sik Suh	8729-231JHM/SS20446US	5102
22150	7590	06/24/2009	EXAMINER	
F. CHAU & ASSOCIATES, LLC 130 WOODBURY ROAD WOODBURY, NY 11797			WENDELL, ANDREW	
			ART UNIT	PAPER NUMBER
			2618	
DATE MAILED: 06/24/2009				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 74 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 74 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	10/813,327	SUH ET AL.	
	Examiner	Art Unit	
	ANDREW WENDELL	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/25/2009.
2. ☒ The allowed claim(s) is/are 1,3,4,6-11,13,15,17-21,23,24,26,28-31,33,34,36,38-40,42,43,45,47 and 48.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____. |
|--|---|

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Frank Chau on 6/18/2009.

The application has been amended as follows: Regarding claim 51, cancel claim 51 and roll limitations "a protocol converter....the bus interface" (lines 3-10 of claim 51) into claim 11 after line 24 of claim.

Allowable Subject Matter

2. The following is an examiner's statement of reasons for allowance: Regarding claim 1, the prior art of record, Circello (US 5,872,940) teaches an application processor 101 (Fig. 1) having a central processing unit 102 (Fig. 1) and a first bus master controller 103 (Fig. 1) for controlling via a first common bus 107 (Fig. 1) a plurality of external peripherals 111, 112, and 113 (Fig. 1); and a shared memory (Col. 3 lines 38-40) connected to the AP 101 (Fig. 1) via the first common bus 107 (Fig. 1), wherein the first bus master controller 103 (fig. 1) controls the plurality of external peripherals by using a packet generator issuing a packet (Fig. 6 and 7, Col. 3 lines 10-12, it is obvious that the commands are sent as packets) commonly receivable by the plurality of external peripherals over the first common bus, and wherein the packets includes a

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module device select signal for selecting one of the plurality of external peripherals (Col. 3 lines 4-58), and wherein the packet is one of a command packet or a data packet and the first bus master controller 103 (Fig. 5) includes a multiplexer 510 or 502 (Fig. 5) configured to receive the command packet (from CSCR and from line 106 of Fig. 5) and the data packet output 110 (Fig. 5) one of the command packet or the data packet to the first common bus 110 (Fig. 5, line 110 of the common bus 107 is a control line which sends command packets to the devices).

Ryan (US 2006/0277424) teaches a shared memory 108 or 110 (Fig. 1) connected to the modem 104 (Fig. 1); an application processor 102 (Fig. 3) having a central processing unit 202 (Fig. 3) and a first bus master controller 211 or 214 (Fig. 3) for controlling via a first common bus 110 (Fig. 3) and a second bus master controller 246 or 250 (Fig. 3) for controlling via a second common bus 112 (Fig. 3), the shared memory 108 or 110 (Fig. 3) connected to the modem 104 (Fig. 3).

Funk (US 6,026,119) teaches a signal modulator/demodulator 101 (Fig. 4) having a digital signal processor for effecting radio communications (Col. 2 lines 44-53) and wherein the bus master controller 111 (fig. 4) controls the plurality of external peripherals by using a packet generator issuing a packet (Figs. 5-6) commonly receivable by the plurality of external peripherals over the first common bus, and wherein the packet includes a module device select signal for selecting one of the plurality of external peripherals (Col. 3 lines 26-45, Col. 4 line 45-Col. 5 line 26, and Fig. 5).

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The prior art of record fails to teach a communication device, comprising a signal modulator/demodulator (modem) having a digital signal processor for effecting radio communications; a shared memory connected to the modem; and an application processor (AP) having a central processing unit and a bus master controller for controlling via a common bus a plurality of external peripherals, the shared memory connected to the modem, wherein the bus master controller controls the plurality of external peripherals and the shared memory by using a packet generator issuing a packet commonly receivable by the plurality of external peripherals and the shared memory over the common bus, and wherein the packet includes a module device select signal for selecting one of the plurality of external peripherals and the shared memory, and wherein the bus master controller comprises a bus interface for data, address, and control signal communication with the central processing unit; a protocol converter and protocol signal controller for receiving control signals from the central processing unit through the bus interface and managing control signal flow according to a present protocol; an address translator for receiving the address from the central processing unit through the bus interface and translating the address depending on an application module to be accessed; a packet generator for receiving control signals from the protocol converter and protocol signal controller and a translated address from the address translator and packetizing the control signals and the translated address in a command packet; a receive buffer for receiving data from the central processing unit through the bus interface; a data pack unit for arranging the received data according to a specified width of a common data structure; and a multiplexer for receiving the

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command packet from the packet generator and the data packet from the data pack unit and outputting one of the command packet or the data packet to the common bus.

Further, applicant's remarks filed on 3/25/2009 state more reasons for allowance.

The prior art of record fails to teach the claimed subject matter as claimed and substantially connected in claims 1, 3-4, and 6-10.

Regarding claim 11, Apparatus claim 11 is allowed for the same reason as apparatus claim 1.

The prior art of record fails to teach the claimed subject matter as claimed and substantially connected in claims 11, 13, 15, and 17-20.

Regarding claim 21, Apparatus claim 21 is allowed for the same reason as apparatus claim 1.

The prior art of record fails to teach the claimed subject matter as claimed and substantially connected in claims 21, 23-24, 26, and 28-30.

Regarding claim 31, Apparatus claim 31 is allowed for the same reason as apparatus claims 1 and 21.

The prior art of record fails to teach the claimed subject matter as claimed and substantially connected in claims 31, 33-34, 36, and 38-39.

Regarding claim 40, method claim 40 is allowed for the same reason as apparatus claims 1 and 21.

The prior art of record fails to teach the claimed subject matter as claimed and substantially connected in claims 40, 42-43, 45, and 47-48.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Welsh discloses sharing a radio frequency interface resource. Hutchison discloses a method and circuit for interfacing a modem in a wireless communication device to a subscriber interface module. Petty discloses a method and apparatus for electrically coupling digital devices. Wietfeldt discloses a system and method for multi-mode wireless communication. Adachi discloses a personal communication apparatus with call switching modem and packet switching modem. Suh discloses a communication device and method having a shared local memory. Clayton discloses a direct memory access controller system with message-based programming. Hadwiger discloses a bus architecture and shared bus arbitration method for a communication device. Usui discloses a data processing device accessing a memory in response to a request made by an external bus master. Lee discloses a method and apparatus for transferring data at high speed using direct memory access in multi-processor environments.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW WENDELL whose telephone number is (571)272-0557. The examiner can normally be reached on 8:00-5:30 M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nay A. Maung/
Supervisory Patent Examiner, Art Unit 2618

/Andrew Wendell/
Examiner, Art Unit 2618

6/18/2009